

Amendments to the Claims

Claims 1-49 (Canceled)

Claim 50 (New): A method for preparing a formulation comprising liposomes loaded with an effective amount of at least one carotenoid that is substantially immiscible in water; the method comprising the steps of:

- a. dissolving a first powder of liposome-forming lipids in an organic solvent to a level close to saturation;
- b. adding to the dissolved liposome-forming lipids obtained in step (a) at least one dry, water immiscible carotenoid to obtain a suspension, and drying the same to form a second dry powder; and
- c. rehydrating the second dry powder in an aqueous solution to yield a carotenoid containing liposomal formulation.

Claim 51 (New): The method of claim 50, wherein said liposome-forming lipids are phospholipids.

Claim 52 (New): The method of claim 51, wherein said phospholipids are derived from egg yolk or soy oil.

Claim 53 (New): The method of claim 52, wherein said liposome-forming phospholipids are selected from the group consisting of E-0100, S20, S20N, S-35, and S-45.

Claim 54 (New): The method of claim 53, wherein said liposome-forming phospholipid is E-100 or S-45.

Claim 55 (New): The method of claim 50, wherein the solvent is cyclohexane.

Claim 56 (New): The method of claim 50, wherein said carotenoid is selected from the group consisting of lycopene, 4,4'-diketocarotenoid, astaxanthin, canthaxanthin, zeaxanthin, beta-cryptoxanthin, lutein, 2',3'-anhydrolutein, β -carotene and rubixanthin.

Claim 57 (New): The method of Claim 56, wherein said carotenoid is lycopene.

Claim 58 (New): The method of Claim 50, wherein said aqueous solution is a water solution.

Claim 59 (New): The method of Claim 50, wherein the weight ratio between said carotenoid and the liposome-forming lipids in the resulting liposomal formulation is in the range of between 1:1 and 1:500.

Claim 60 (New): The method of Claim 50, wherein said carotenoid is entrapped in the lipid bilayer of the liposome formed.

Claim 61 (New): A formulation comprising liposomes loaded with an amount of a water-immiscible carotenoid, the formulation being prepared by the method of Claim 50.

Claim 62 (New): The formulation of Claim 61, wherein said liposomes are formed from lipids, the weight ratio between the water-immiscible carotenoid and the liposome-forming lipids being in the range of between 1:1 and 1:500.

Claim 63 (New): The formulation of Claim 61, wherein said liposomes consist of a lipid bilayer and said carotenoid is entrapped in said lipid bilayer.

Claim 64 (New): The formulation of Claim 61, wherein the liposome-forming lipids are phospholipids.

Claim 65 (New): The formulation of Claim 64, wherein said phospholipids are derived from egg yolk or from soy oil.

Claim 66 (New): The formulation of Claim 65, wherein said lipids are selected from the group consisting of E-100, S-20, S20N, S35 and S-45.

Claim 67 (New): The formulation of Claim 66, wherein said lipid is E-100 or S-45 or a combination of the same.

Claim 68 (New): A pharmaceutical composition comprising an effective amount of a formulation according to Claim 61 and a pharmaceutically acceptable additive.

Claim 69 (New): The pharmaceutical composition of Claim 68, comprising an effective amount of a formulation according to Claim 62.

Claim 70 (New): The pharmaceutical composition of Claim 68, comprising an effective amount of a formulation according to Claim 63.

Claim 71 (New): The pharmaceutical composition of Claim 68, comprising an effective amount of a formulation according to Claim 64.

Claim 72 (New): The pharmaceutical composition of Claim 68, comprising an effective amount of a formulation according to Claim 65.

Claim 73 (New): The pharmaceutical composition of Claim 68, comprising an effective amount of a formulation according to Claim 66.

Claim 74 (New): The pharmaceutical composition of Claim 68, comprising an effective amount of a formulation according to Claim 67.

Claim 75 (New): The composition of Claim 61, wherein the formulation further comprises a pharmaceutically acceptable or cosmetically acceptable carrier.

Claim 76 (New): The composition of Claim 75, formulated for topical application to an individual's skin.

Claim 77 (New): The composition of Claim 76, in the form of a cream, a lotion, hydrogel or gel preparation.

Claim 78 (New): The composition of Claim 75, formulated for oral administration.

Claim 79 (New): The composition of Claim 78, in the form of a capsule.

Claim 80 (New): The composition of Claim 78, in the form of an edible wherein said formulation is in the form of a suspension.

Claim 81 (New): The composition of Claim 68, for the treatment of damage caused by the formation of singlet oxygen.

Claim 82 (New): A therapeutic method for the treatment or prevention of damage caused by singlet oxygen, the method comprises providing an individual in need thereof a composition according to Claim 61.

Claim 83 (New): A kit comprising (a) a dry powder comprising a mixture of liposome-forming lipids and at least one water immiscible carotenoid prepared as described in Claim 50, step (b); (b) sterile aqueous solution; and (c) instruction for use of the dry powder and the aqueous solution to yield liposomes loaded with said carotenoid according to step (c) of the method of Claim 50, said instructions also prescribing the administration of the liposomes loaded with said carotenoid to an individual in need thereof.

Claim 84 (New): The kit of Claim 83, wherein said dry powder is obtained by freeze-drying.

Claim 85 (New): The kit of Claim 84, wherein said powder a lyophilizate.

Claim 86 (New): The kit of Claim 83, wherein said water-immiscible carotenoid is selected from the group consisting of lycopene, 4,4'-diketocarotenoid, astaxanthin, canthaxanthin, zeaxanthin, beta-cryptoxanthin, lutein, 2',3'-anhydrolutein, β -carotene and rubixanthin.

Claim 87 (New): The kit of Claim 86, wherein said carotenoid is lycopene.

Claim 88 (New): The kit of Claim 83, wherein said liposome-forming lipid is a phospholipid.

Claim 89 (New): The kit of Claim 88, wherein said phospholipid are selected from the group consisting of E-100, S20, S20N, S-35 and S-45.